



## Fleck 5800 LXT & SXT Downflow/Upflow

### Service Manual



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The chart below is for dealer use only. These configurations are the only available

Available configurations						
Electronic	Flow	Mixing	Regeneration Start	Injector	DLFC	BLFC
SXT	DF	yes	Time clock	1	1,5	0,25
SXT	DF	yes	ECO	1	1,5	0,25
SXT	DF	yes	ECO	0	1,2	0,25
SXT	UF	yes	Time clock	00	1,2	0,25
SXT	UF	yes	ECO	00	1,2	0,25
SXT	Filter	no	Time clock	NA	7	NA
LXT	DF	yes	Time clock	1	1,5	0,25
LXT	DF	yes	ECO	1	1,5	0,25
LXT	UF	yes	Time clock	0	1,2	0,25
LXT	UF	yes	ECO	0	1,2	0,25
LXT	Filter	no	Time clock	NA	7	NA

# 1 - VALVE SPECIFICATIONS

Installation N°	<input type="text"/>
Valve serial N°	<input type="text"/>
Tank size	<input type="text"/>
Resin type	<input type="text"/>
Resin volume	<input type="text"/>

System capacity	<input type="text"/>	m <sup>3</sup> tH
Inlet water hardness	<input type="text"/>	°tH
Water hardness after mixing valve	<input type="text"/>	°tH
Brine tank size	<input type="text"/>	L
Quantity of salt per regeneration	<input type="text"/>	Kg

## VALVE TECHNICAL CHARACTERISTICS

### VALVE TYPE

5800/1600 /DF	<input type="checkbox"/>	5800/1600/UF	<input type="checkbox"/>
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¾"meter

### INITIATION

Time Clock	<input type="checkbox"/>
Weekly Time Clock	<input type="checkbox"/>
Meter delayed	<input type="checkbox"/>
Meter immediate	<input type="checkbox"/>

### SET REGENERATION

<input type="text"/> Days	<input type="text"/> Litres
Day(s) of the week (Monday, Tuesday... Sunday)	<input type="text"/>

### REGENERATION TIME

2 A.M.	<input type="text"/>
Or <input type="text"/> a.m./p.m.	

## VALVE TECHNICAL CHARACTERISTICS

Cycle 1	<input type="text"/>	Min.
Cycle 2	<input type="text"/>	Min.
Cycle 3	<input type="text"/>	Min.
Cycle 4	<input type="text"/>	Min.

## HYDRAULIC SETTINGS

Injector size	<input type="text"/>		Pressure regulator
Drain line flow control (DLFC)	<input type="text"/>	GPM	1,4 bar (20 PSI) <input type="checkbox"/>
Brine line flow control (BLFC)	<input type="text"/>	GPM	without <input type="checkbox"/>

## VOLTAGE

24V/50Hz

Valves complying european regulations :
- Nr. 2004/108/CE, « Electromagnetic compability »
- Nr. 2006/95/CE, « Low voltage »
- Nr. D.M. 174/04, Italian regulation

## NOTES

## **2 - GENERAL ADVICE**

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### **1 WATER PRESSURE**

A minimum of 1,4 bar of water pressure is required for the regeneration valve to operate effectively. Do not exceed 8,5 bar; if you face this case, you should install a pressure regulator upstream the system.

### **2 ELECTRICAL CONNECTION**

An uninterrupted current supply is required. Please make sure that your voltage supply is compatible with your unit before installation. If the electrical cable is damaged, it must imperatively be replaced by a qualified personal.

### **3 EXISTING PLUMBING**

Existing plumbing should be in a good shape and free from limescale. In doubt, it is preferable to replace it. The installation of a pre filter is always advised.

### **4 BY-PASS**

Always provide a by pass valve for the installation, if the unit is not equipped with one.

### **5 WATER TEMPERATURE**

Water temperature is not to exceed 43°C, and the unit cannot be subjected to freezing conditions. (It could cause irreversible damage to the valve).

## **3 - INSTALLATION INSTRUCTIONS**

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1. Install the softener pressure vessels in a chosen place on a flat firm surface.
2. During cold weather, it is recommended to bring the valve back to room temperature before operating.
3. All plumbing for water inlet, distribution and drain lines should be done correctly in accordance with legislation in force at the time of installation.
4. The distribution tube should be cut flush with the top of the tank. Slightly bevel the ridge in order to avoid deterioration of the seal whilst fitting the valve.
5. Lubricate the distribution tube joint and the joint with a 100% Silicon lubricant. Never use other types of greases that may damage the valve.
6. All soldering on main plumbing and to the drain line should be done before fitting the valve. Failing to do so can generate irreversible damages.
7. Use Teflon® tape if necessary in order to seal between the drain fitting and the outlet flow control.
8. Ensure that the floor under the brine tank is clean and flat
9. On units with by-pass, place in by-pass position. Turn on the main water supply. Open a cold soft water tap nearby and let run a few minutes or until the system is free from foreign material (usually solder) that may have resulted from the installation. Once clean, close the water tap.
10. Place the by-pass in service position and let water flow into the mineral tank. When water flow stops, slowly open a cold water tap nearby and let run until the air is purged from the unit.
11. Plug the valve to a power source. Check that the valve is in service position.
12. Fill approximately 25mm of water above the grid plate, (if used). Otherwise, fill to the top of the air check in the brine tank. Do not add salt to the brine tank at this time.
13. Initiate a manual regeneration, bring the valve into "brine draw and slow rinse" position in order to draw water from the brine tank until the blockage of the air-check valve ; the water level will be approximately in the middle of the air check. Open the cold water tap and let water flow in order to drain the air out of the circuit.
14. Open a cold water tap and let the water run in order to drain the air out of the circuit.
15. Put the valve in brine refill position and let it get back to service position automatically.
16. Now you can add salt to the brine tank, the valve will operate automatically.

## 4 - START-UP INSTRUCTIONS LXT

The water softener should be installed with the inlet, outlet, and drain connections made in accordance with the manufacturer's recommendations, and to meet applicable plumbing codes.

1. Program the valve control according to instructions shown in this manual.
2. Start an immediate regeneration by holding the Extra Cycle button for 5 seconds. Position the valve to backwash. Ensure the drain line flow remains steady for 10 minutes or until the water runs clear.
3. Position the valve to the brine / slow rinse position. Ensure the unit is drawing water from the brine tank (this step may need to be repeated).
4. Position the valve to the rapid rinse position. Check the drain line flow, and run for 5 minutes or until the water runs clear.
5. Position the valve to the start of the brine tank fill cycle. Ensure water goes into the brine tank at the desired rate. The brine valve drive cam will hold the valve in this position to fill the brine tank for the first regeneration.
6. Replace control cover.
7. Put salt in the brine tank.

NOTE: Do not use granulated or rock salt.

## 5 - TIMER FEATURES LXT

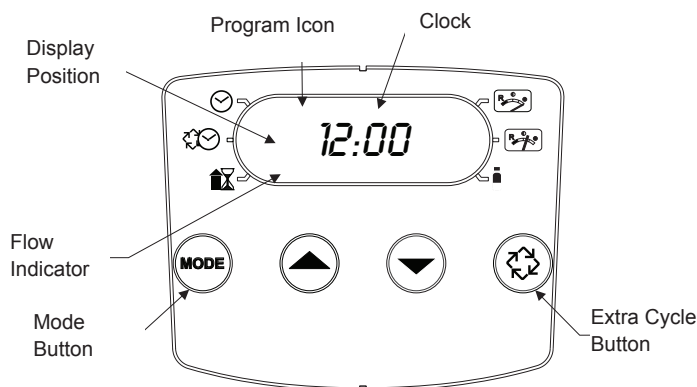


Figure 2

### Features of the LXT:

- Power backup that continues to keep time and the passage of days for a minimum of 12 hours in the event of power failure. During a power outage, the control goes into a power-saving mode. It does not monitor water usage during a power failure, but it does store the volume remaining at the time of power failure.
- Day of the week reserve calculates a reserve for each day based on the past 4 weeks.
- The Flow Indicator flashes when outlet flow is detected.
- The Service Icon flashes if a regeneration cycle has been queued.
- A Regeneration can be triggered immediately by pressing the Extra Cycle button for five seconds.
- During a regeneration, the display will show the cycle number followed by the time remaining in that cycle
- During regeneration, the user can force the control to advance to the next cycle step immediately by pressing the extra cycle button.

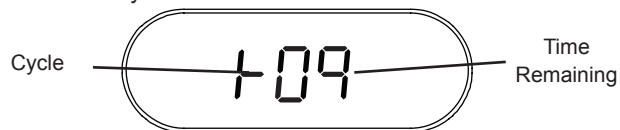


Figure 3

### Setting the Time of Day

1. Press and hold either the Up or Down buttons until the Time of Day icon appears.
2. Adjust the displayed time with the Up and Down buttons.
3. When the desired time is set, press the Extra Cycle button to resume normal operation. The unit will also return to normal operation after 5 seconds if no buttons are pressed.



Figure 4

### Queueing a Regeneration

1. Press the Extra Cycle button. The service icon will flash to indicate that a regeneration is queued.
2. To cancel a queued regeneration, press the Extra Cycle button.

### Regenerating Immediately

Press and hold the Extra Cycle button for five seconds.

## 6 - TIMER OPERATION LXT

### Meter Delayed Control

A Meter Delayed Control measures water usage. The system regenerates at the programmed regeneration time after the calculated system capacity is depleted. The control calculates the system capacity by dividing the unit capacity by the feedwater hardness and subtracting the reserve. The reserve should be set to insure that the system delivers treated water between the time the system capacity is depleted and the actual regeneration time. A Meter Delayed control will also start a regeneration cycle at the programmed regeneration time if a number of days equal to the regeneration day override pass before water usage depletes the calculated system capacity.

### Control Operation During Regeneration

During regeneration, the control displays a special regeneration display. In this display, the control shows the current regeneration step number the valve is advancing to, or has reached, and the time remaining in that step. The step number that displays flashes until the valve completes driving to this regeneration step position. Once all regeneration steps are complete the valve returns to service and resumes normal operation.

The meter and time clock controls will use and display cycles:

1. Backwash
2. Brine/Slow Rinse
3. Rapid Rinse
4. Brine Tank Refill

The filter controls will use and display cycles:

1. Backwash
2. Rapid Rinse

Pressing the Extra Cycle button during a regeneration cycle immediately advances the valve to the next cycle step position and resumes normal step timing.

### Control Operation During Programming

The control only enters the Program Mode with the valve in service. While in the Program Mode, the control continues to operate normally monitoring water usage and keeping all displays up to date. Control programming is stored in memory permanently, and does not rely on battery backup power.

### Manually Initiating a Regeneration

1. When timer is in service, press the Extra Cycle button for 5 seconds on the main screen.
2. The timer advances to Regeneration Cycle Step #1 (backwash), and begins programmed time count down.
3. Press the Extra Cycle button once to advance valve to Regeneration Cycle Step #2 (brine draw & slow rinse).
4. Press the Extra Cycle button once to advance valve to Regeneration Cycle Step #3 (rapid rinse).
5. Press the Extra Cycle button once to advance valve to Regeneration Cycle Step #4 (brine refill).
6. Press the Extra Cycle button once more to advance the valve back to in service.

NOTE: If the unit is a filter or upflow, the cycle step order may change.

NOTE: A queued regeneration can be initiated by pressing the Extra Cycle button. To clear a queued regeneration, press the Extra Cycle button again to cancel. If regeneration occurs for any reason prior to the delayed regeneration time, the manual regeneration request will be cleared.

### Control Operation During A Power Failure

The LXT includes integral power backup. In the event of power failure, the control shifts into a power-saving mode. The control stops monitoring water usage. The display and motor shut down, but it continues to keep track of the time and day for a minimum of 12 hours.

The system configuration settings are stored in a non-volatile memory and are stored indefinitely with or without line power.

If power fails while the unit is in regeneration, the control will save the current valve position before it shuts down. When power is restored, the control will resume the regeneration cycle from the point where power failed.

**CAUTION** If power fails during a regeneration cycle, the valve will remain in its current position until power is restored. The valve system should include all required safety components to prevent overflows resulting from a power failure during regeneration.

The control will not start a new regeneration cycle without line power. If the valve misses a scheduled regeneration due to a power failure, it will queue a regeneration. Once power is restored, the control will initiate a regeneration cycle the next time that the Time of Day equals the programmed regeneration time. Typically, this means that the valve will regenerate one day after it was originally scheduled. If the treated water output is important and power interruptions are expected, the system should be setup with a sufficient reserve capacity to compensate for regeneration delays.

## 7 - START-UP INSTRUCTIONS SXT

The water softener should be installed with the inlet, outlet, and drain connections made in accordance with the manufacturer's recommendations, and to meet applicable plumbing codes.

1. Program the valve control according to instructions shown in this manual.
2. Start an immediate regeneration by holding the Extra Cycle button for 5 seconds. Position the valve to backwash. Ensure the drain line flow remains steady for 10 minutes or until the water runs clear.
3. Position the valve to the brine / slow rinse position. Ensure the unit is drawing water from the brine tank (this step may need to be repeated).
4. Position the valve to the rapid rinse position. Check the drain line flow, and run for 5 minutes or until the water runs clear.
5. Position the valve to the start of the brine tank fill cycle. Ensure water goes into the brine tank at the desired rate. The brine valve drive cam will hold the valve in this position to fill the brine tank for the first regeneration.
6. Replace control cover.
7. Put salt in the brine tank.

NOTE: Do not use granulated or rock salt.

## 8 - TIMER FEATURES SXT

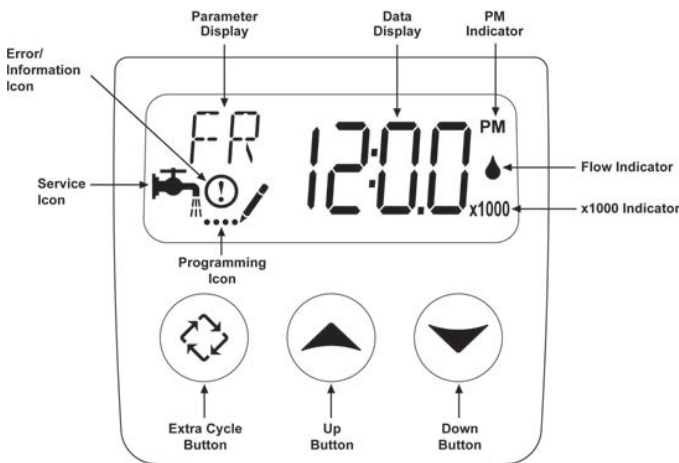


Figure 5

### Features of the SXT:

- Power backup that continues to keep time and the passage of days for a minimum of 48 hours in the event of power failure. During a power outage, the control goes into a power-saving mode. It does not monitor water usage during a power failure, but it does store the volume remaining at the time of power failure.
- Settings for both valve (basic system) and control type (method used to trigger a regeneration).
- Day-of-the-Week controls.
- While in service, the display alternates between time of day, volume remaining or days to regeneration.
- The Flow Indicator flashes when outlet flow is detected.
- The Service Icon flashes if a regeneration cycle has been queued.
- A Regeneration can be triggered immediately by pressing the Extra Cycle button for five seconds.

- The Parameter Display displays the current Cycle Step (BW, BF, RR etc) during regeneration, and the data display counts down the time remaining for that cycle step. While the valve is transferring to a new cycle step, the display will flash. The parameter display will identify the destination cycle step (BW, BF, RR, etc) and the data display will read "-----". Once the valve reaches the cycle step, the display will stop flashing and the data display will change to the time remaining. During regeneration, the user can force the control to advance to the next cycle step immediately by pressing the extra cycle button.

### Setting the Time of Day

1. Press and hold either the Up or Down buttons until the programming icon replaces the service icon and the parameter display reads TD.
2. Adjust the displayed time with the Up and Down buttons.
3. When the desired time is set, press the Extra Cycle button to resume normal operation. The unit will also return to normal operation after 5 seconds if no buttons are pressed.

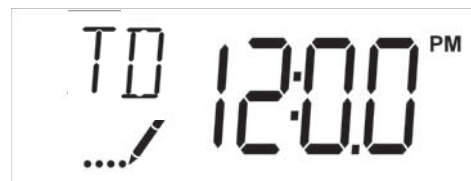


Figure 6

### Queueing a Regeneration

1. Press the Extra Cycle button. The service icon will flash to indicate that a regeneration is queued.
2. To cancel a queued regeneration, press the Extra Cycle button.

### Regenerating Immediately

Press and hold the Extra Cycle button for five seconds.



## 8 - TIMER OPERATION SXT *continued*

### Meter Immediate Control

A Meter Immediate control measures water usage and regenerates the system as soon as the calculated system capacity is depleted. The control calculates the system capacity by dividing the unit capacity (typically expressed in grains/unit volume) by the feedwater hardness and subtracting the reserve. Meter Immediate systems generally do not use a reserve volume. The control will also start a regeneration cycle at the programmed regeneration time if a number of days equal to the regeneration day override pass before water usage depletes the calculated system capacity.

### Meter Delayed Control

A Meter Delayed Control measures water usage. The system regenerates at the programmed regeneration time after the calculated system capacity is depleted. As with Meter Immediate systems, the control calculates the system capacity by dividing the unit capacity by the feedwater hardness and subtracting the reserve. The reserve should be set to insure that the system delivers treated water between the time the system capacity is depleted and the actual regeneration time. A Meter Delayed control will also start a regeneration cycle at the programmed regeneration time if a number of days equal to the regeneration day override pass before water usage depletes the calculated system capacity.

### Time Clock Delayed Control

A Time Clock Delayed Control regenerates the system on a timed interval. The control will initiate a regeneration cycle at the programmed regeneration time when the number of days since the last regeneration equals the regeneration day override value.

### Day of the Week Control

This control regenerates the system on a weekly schedule. The schedule is defined in Master programming by setting each day to either "off" or "on". The control will initiate a regeneration cycle on days that have been set to "on" at the specified regeneration time.

### Control Operation During Regeneration

During regeneration, the control displays a special regeneration display. In this display, the control shows the current regeneration step number the valve is advancing to, or has reached, and the time remaining in that step. The step number that displays flashes until the valve completes driving to this regeneration step position. Once all regeneration steps are complete the valve returns to service and resumes normal operation.

Pressing the Extra Cycle button during a regeneration cycle immediately advances the valve to the next cycle step position and resumes normal step timing.

### Control Operation During Programming

The control only enters the Program Mode with the valve in service. While in the Program Mode, the control continues to operate normally monitoring water usage and keeping all displays up to date. Control programming is stored in memory permanently.

### Manually Initiating a Regeneration

1. When timer is in service, press the Extra Cycle button for 5 seconds on the main screen.
2. The timer advances to Regeneration Cycle Step #1 (rapid rinse), and begins programmed time count down.
3. Press the Extra Cycle button once to advance valve to

Regeneration Cycle Step #2 (backwash).

4. Press the Extra Cycle button once to advance valve to Regeneration Cycle Step #3 (brine draw & slow rinse).
5. Press the Extra Cycle button once to advance valve to Regeneration Cycle Step #4 (brine refill).
6. Press the Extra Cycle button once more to advance the valve back to in service.

NOTE: If the unit is a filter or upflow, the cycle step order may change.

NOTE: A queued regeneration can be initiated by pressing the Extra Cycle button. To clear a queued regeneration, press the Extra Cycle button again to cancel. If regeneration occurs for any reason prior to the delayed regeneration time, the manual regeneration request will be cleared.

### Control Operation During A Power Failure

The SXT includes integral power backup. In the event of power failure, the control shifts into a power-saving mode. The control stops monitoring water usage. The display and motor shut down, but it continues to keep track of the time and day for a minimum of 12 hours.

The system configuration settings are stored in a non-volatile memory and are stored indefinitely with or without power. The Time of Day flashes when there has been a power failure. Press any button to stop the Time of Day from flashing.

If power fails while the unit is in regeneration, the control will save the current valve position before it shuts down. When power is restored, the control will resume the regeneration cycle from the point where power failed.

**CAUTION** If power fails during a regeneration cycle, the valve will remain in it's current position until power is restored. The valve system should include all required safety components to prevent overflows resulting from a power failure during regeneration.

The control will not start a new regeneration cycle without power. If the valve misses a scheduled regeneration due to a power failure, it will queue a regeneration. Once power is restored, the control will initiate a regeneration cycle the next time that the Time of Day equals the programmed regeneration time. Typically, this means that the valve will regenerate one day after it was originally scheduled. If the treated water output is important and power interruptions are expected, the system should be setup with a sufficient reserve capacity to compensate for regeneration delays.

## 9 - MASTER PROGRAMMING MODE LXT

**CAUTION** Before entering Master Programming, please contact your local professional water dealer.

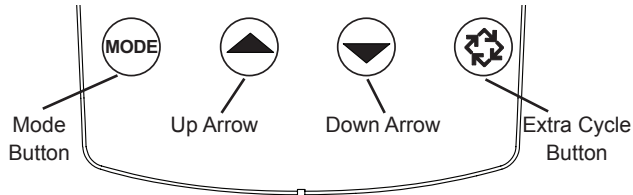


Figure 7

Press Mode button to cycle through programming options.

When timer is powered up, the display position will point to Time of Day. Set time of day by holding the Up or Down arrow. Hold the Extra Cycle button until the Program icon disappears to save the current time.

### 5800 Meter Downflow/Upflow

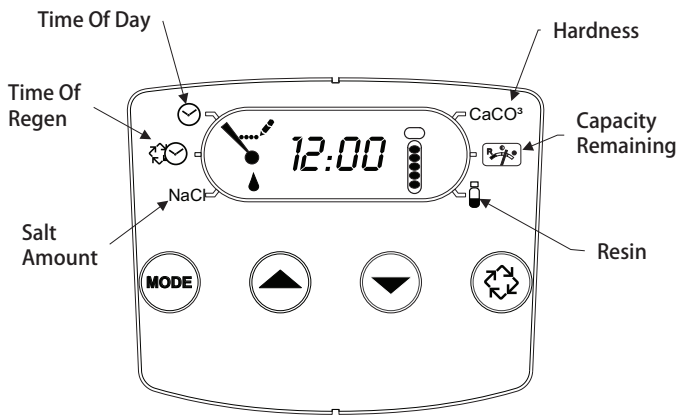


Figure 8

1. Press the Mode button to advance to Time of Regen. Push the Up or Down arrow to adjust the time of regeneration.
2. Press the Mode button again to advance to Salt Amount. Press the Up or Down arrow to adjust your salt dosage. English timer range is 3-18 lbs. Metric timer range is 50-290 grams per liter.
3. Press the Mode button again to advance to Hardness. Press the Up or Down arrow to adjust the setting to your hardness. English timer range is 3 to 200 gpg. Metric timer range is 30-200 mg/l.
4. Press the Mode button again to advance to Capacity Remaining. This is the amount of gallons the unit can treat. This is not adjustable.
5. Press the Mode button again to advance to Resin. Use the Up or Down arrow to adjust the amount of CuFt resin in your tank. English timer range is 0.25-3.0 CuFt. Metric timer range is 5-100 liters.
6. Hold the Extra Cycle button until the Program icon disappears to save your programming.
7. If you are just changing one program step, hold the Extra Cycle button until the Program icon disappears to save your changes. If you do not hold the Extra Cycle button until the Program icon disappears your changes will not be saved.

**NOTE:** This unit has a day of the week reserve. It calculates a reserve for each day of the week based on the past 4 weeks.

### 5800 Time Clock Downflow/Upflow

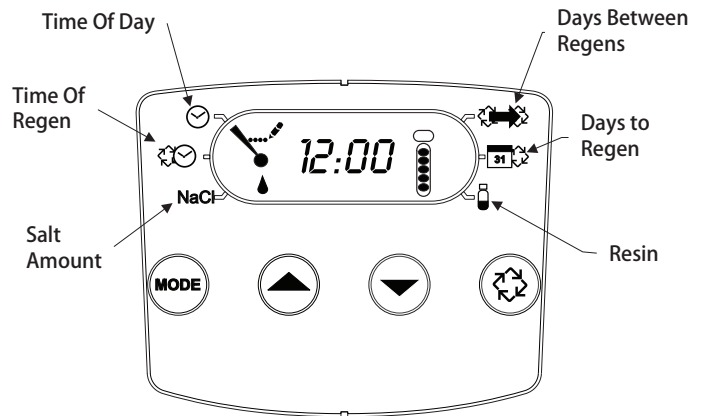


Figure 9

1. Press the Mode button to advance to Time of Regen. Push the Up or Down arrow to adjust the time of regeneration.
2. Press the Mode button again to advance to Salt Amount. Press the Up or Down arrow to adjust your salt dosage. English timer range is 3-18 lbs. Metric timer range is 50-290 grams per liter.
3. Press the Mode button again to advance to Days Between Regens. Range is 1 to 30 days.
4. Press the Mode button again to advance to Days to Regen. This is not adjustable.
5. Press the Mode button again to advance to Resin. Use the Up or Down arrow to adjust the amount of CuFt resin in your tank. English timer range is 0.25-3.0 CuFt. Metric timer range is 5-100 liters.
6. Hold the Extra Cycle button until the Program icon disappears to save your programming.
7. If you are just changing one program step, hold the Extra Cycle button until the Program icon disappears to save your changes. If you do not hold the Extra Cycle button until the Program icon disappears your changes will not be saved.



## 9 - MASTER PROGRAMMING MODE LXT

### *continued*

#### 5800 Filter Meter

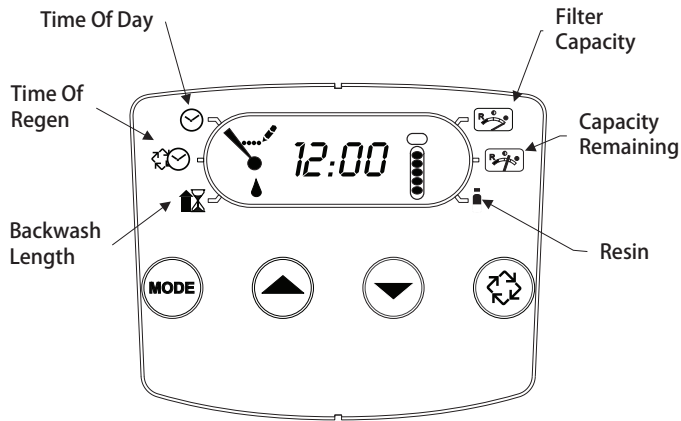


Figure 10

1. Press the Mode button to advance to Time of Backwash. Push the Up or Down arrow to adjust the time of backwash.
2. Press the Mode button again to advance to Backwash Length. Press the Up or Down arrow to adjust your backwash length. Range is 1-30 minutes.
3. Press the Mode button again to advance to Filter Capacity. Press the Up or Down arrow to adjust the setting for filter capacity. English timer range is 100-90,000 gallons. Metric timer range is 1-900 cubic meters.
4. Press the Mode button again to advance to Capacity Remaining. This is not adjustable.
5. Press the Mode button again to advance to Resin. Use the Up or Down arrow to adjust the amount of CuFt resin in your tank. English timer range is 0.25-3.0 CuFt. Metric timer range is 5-100 liters.
6. Hold the Extra Cycle button until the Program icon disappears to save your programming.
7. If you are just changing one program step, hold the Extra Cycle button until the Program icon disappears to save your changes. If you do not hold the Extra Cycle button until the Program icon disappears your changes will not be saved.

**NOTE: This unit has a day of the week reserve. It calculates a reserve for each day of the week based on the past 4 weeks.**

#### 5800 Filter Time Clock

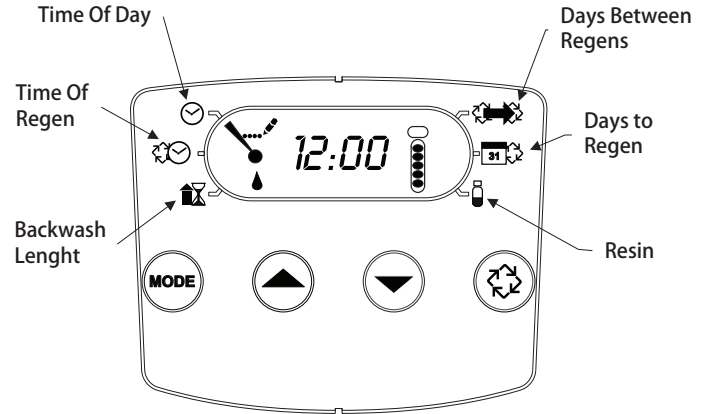


Figure 11

1. Press the Mode button to advance to Time of Backwash. Push the Up or Down arrow to adjust the time of backwash.
2. Press the Mode button again to advance to Backwash Length. Press the Up or Down arrow to adjust your backwash length. Range is 1-30 minutes.
3. Press the Mode button again to advance to Days Between Regens. Range is 1 to 30 days.
4. Press the Mode button again to advance to Days to Backwash. This is not adjustable.
5. Press the Mode button again to advance to Resin. Use the Up or Down arrow to adjust the amount of CuFt resin in your tank. English timer range is 0.25-3.0 CuFt. Metric timer range is 5-100 liters.
6. Hold the Extra Cycle button until the Program icon disappears to save your programming.
7. If you are just changing one program step, hold the Extra Cycle button until the Program icon disappears to save your changes. If you do not hold the Extra Cycle button until the Program icon disappears your changes will not be saved.

# 10 - DIAGNOSTIC PROGRAMMING

## MODE LXT

Demand - US Units	
Diagnostic Code	Description
H1	Displays the days since last regeneration, 0-30.
H2	Displays the current flow rate, gallons per minute.
H3	Displays the current day of week, 1-7.
H4	Displays the total volume of water treated by the unit for the current day in gallons.
H5	Displays the total volume of water used since the last regeneration in gallons.
H6	Displays the software version. Version number of software. D = Downflow U = Upflow
A1	Displays the average water usage for day 1, in gallons.
A2	Displays the average water usage for day 2, in gallons.
A3	Displays the average water usage for day 3, in gallons.
A4	Displays the average water usage for day 4, in gallons.
A5	Displays the average water usage for day 5, in gallons.
A6	Displays the average water usage for day 6, in gallons.
A7	Displays the average water usage for day 7, in gallons.

Demand - Metric Units	
Diagnostic Code	Description
H1	Displays the days since last regeneration, 0-30.
H2	Displays the current flow rate, liters per minute.
H3	Displays the current day of week.
H4	Displays the total volume of water treated by the unit for the current day, in cubic meters.
H5	Displays the total volume of water used since the last regeneration, in cubic meters.
H6	Displays the software version. Version number of software. D = Downflow U = Upflow
A1	Displays the average water usage for day 1, in cubic meters.
A2	Displays the average water usage for day 2, in cubic meters.
A3	Displays the average water usage for day 3, in cubic meters.
A4	Displays the average water usage for day 4, in cubic meters.
A5	Displays the average water usage for day 5, in cubic meters.
A6	Displays the average water usage for day 6, in cubic meters.
A7	Displays the average water usage for day 7, in cubic meters.

Time Clock	
Diagnostic Code	Description
H1	Displays the days since last regeneration, 1-7.
H6	Displays the software version. Version number of software. D = Downflow U = Upflow

**NOTE: The English timer will be in gallons. The Metric timer will be in liters for all flow rates.**

### Diagnostic Programming Mode Steps

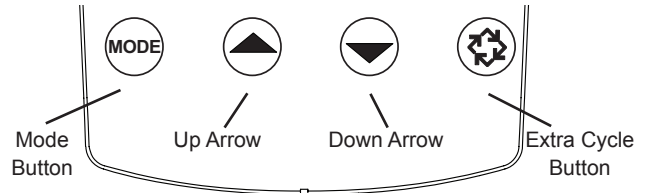


Figure 12

1. To enter the Diagnostic Programming Mode, press and hold the Mode button and the Up arrow.
2. The display will show the first diagnostic. Press the Up arrow to view the value.
3. Press the Mode button twice to move to the next diagnostic.
4. Press the Up arrow to view the value. Continue in this manner until you have viewed all the diagnostics. The table above shows all the diagnostics.
5. To exit Diagnostic Programming Mode, hold the Extra Cycle button for one minute. It will also exit after 30 seconds if no button is pushed.

# 11 - MASTER PROGRAMMING MODE

## CHART SXT

**CAUTION** Before entering Master Programming, please contact your local professional water dealer.

Master Programming Options			
Abbreviation	Parameter	Option Abbreviation	Options
DF	Display Format	GAL	Gallons
		Ltr	Liters
VT	Valve Type	5800	5800 Control Valve
RF	Regenerant Flow	dF1b	Standard Downflow Single Backwash
		dF2b	Standard Downflow Double Backwash
		Fitr	Filter
		AIO	Air Injection Oxidizer
		dFFF	Downflow Fill First
		UFbd	Upflow Brine First
		UFFF	Upflow Fill First
		Othr	Other
CT	Control Type	Fd	Meter (Flow) Delayed
		FI	Meter (Flow) Immediate
		tc	Time Clock
		dAY	Day of Week
C	Unit Capacity		Unit Capacity (Grains)
H	Feedwater Hardness		Hardness of Inlet Water (Grains)
RS	Reserve Selection	SF	Percentage Safety Factor
		rc	Fixed Reserve Capacity
SF	Safety Factor		Percentage of the system capacity to be used as a reserve
RC	Fixed Reserve Capacity		Fixed volume to be used as reserve
DO	Day Override		The system's day override setting
RT	Regen Time		The time of day the system will regenerate
BW, BD, RR, BF	Regen Cycle Step Times		The time duration for each regeneration step. Adjustable from OFF and 0-199 minutes. <b>NOTE: If "Othr" is chosen under "Valve Type", then C1, C2, ..., C20 will be displayed along with available cycle steps RR, BD, SR, BW, RF, SP. LC denotes the Last Cycle.</b>
D1, D2, D3, D4, D5, D6, & D7	Day of Week Settings		Regeneration setting (On or Off) for each day of the week on day-of-week systems.
CD	Current Day		The Current day of the week
FM	Flow Meter Type	P0.7	3/4" Paddle Wheel Meter
		t0.7	3/4" Turbine Meter
		P1.0	1" Paddle Wheel Meter
		t1.0	1" Turbine Meter
		P1.5	1.5" Paddle Wheel Meter
		t1.5	1.5" Turbine Meter
		P2.0	2" Paddle Wheel Meter
		Gen	Generic or Other non-Fleck Meter
K	Meter Pulse Setting		Meter pulses per gallon for generic/other flow meter

**NOTE: Some items may not be shown depending on timer configuration. The timer will discard any changes and exit Master Programming Mode if any button is not pressed for 5 minutes.**

## 12 - MASTER PROGRAMMING MODE

### SXT

When the Master Programming Mode is entered, all available option setting displays may be viewed and set as needed. Depending on current option settings, some parameters cannot be viewed or set.

#### Setting the Time of Day

1. Press and hold either the Up or Down buttons until the programming icon replaces the service icon and the parameter display reads TD.
2. Adjust the displayed time with the Up and Down buttons.
3. When the desired time is set, press the Extra Cycle button to resume normal operation. The unit will also return to normal operation after 5 seconds if no buttons are pressed.



Figure 13

#### Entering Master Programming Mode

Set the Time of Day display to 12:01 P. M. Press the Extra Cycle button (to exit Setting Time of Day mode). Then press and hold the Up and Down buttons together until the programming icon replaces the service icon and the display format screen appears.

#### Exiting Master Programming Mode

Press the Extra Cycle button to accept the displayed settings and cycle to the next parameter. Press the Extra Cycle button at the last parameter to save all settings and return to normal operation. The control will automatically disregard any programming changes and return to normal operation if it is left in Master Programming mode for 5 minutes without any keypad input.

#### Resets

##### Soft Reset

Press and hold the Extra Cycle and Down buttons for 25 seconds while in normal Service mode. This resets all parameters to the system default values. Not reset are the volume remaining in meter immediate or meter delayed systems and days since regeneration in the time clock system.

##### Master Reset

Hold the Extra Cycle button while powering up the unit. This resets all of the parameters in the unit. Check and verify the choices selected in Master Programming Mode.

#### 1. Display Format (Display Code DF)

This is the first screen that appears when entering Master Programming Mode. The Display Format setting specifies the unit of measure that will be used for volume and how the control will display the Time of Day. This option setting is identified by "DF" in the upper left hand corner of the screen. There are two possible settings.

Display Format Setting	Unit of Volume	Time Display
GAL	U.S. Gallons	12-Hour AM/PM
Ltr	Liters	24-Hour



Figure 14

#### 2. Valve Type (Display Code VT)

Press the Extra Cycle button. Use the display to set the Valve Type. 5800 is the only currently available valve type.

#### 3. Regenerant Flow (Display Code RF)

Press the Extra Cycle button. The Regenerant Flow Setting specifies the type of cycle that the valve follows during regeneration. Note that some valve types require the valve be built with specific subcomponents. Ensure the valve is configured properly before changing the Valve Type setting. This option setting is identified by "RF" in the upper left hand corner of the screen. There are 8 possible settings.

Abbreviation	Parameter
dF1b	Standard Downflow Single Backwash
dF2b	Standard Downflow Double Backwash
Filtr	Filter
AIO	Air Injection Oxidizer
dFFF	Downflow Fill First
UFbd	Upflow Brine First
UFFF	Upflow Fill First
Othr	Other



Figure 15

#### 4. Control Type (Display Code CT)

Press the Extra Cycle button. Use this display to set the Control Type. This specifies how the control determines when to trigger a regeneration. For details on how the various options function, refer to the "Timer Operation SXT" section of this service manual. This option setting is identified by "CT" in the upper left hand corner of the screen. There are four possible settings.

Abbreviation	Parameter
Fd	Meter (Flow) Delayed
FI	Meter (Flow) Immediate
tc	Time Clock
dAY	Day of Week

## 12 - MASTER PROGRAMMING MODE

### SXT *continued*

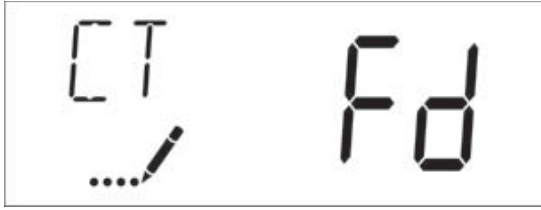


Figure 16

#### 5. Unit Capacity (Display Code C)

Press the Extra Cycle button. Use this display to set the Unit Capacity. This setting specifies the treatment capacity of the system media. Enter the capacity of the media bed in grains of hardness when configuring a softener system, or desired volume capacity when configuring a filter system. This option setting is identified by "C" in the upper left hand corner of the screen (or by "V" if volume capacity for a filter). The Unit Capacity parameter is only available if the control type has been set to one of the metered options. Use the Up and Down buttons to adjust the value as needed.



Figure 17

Range: 1-9,999,000 grains/gallon (1-9,999,000 mg)

#### 6. Feedwater Hardness (Display Code H)

Press the Extra Cycle button. Use this display to set the Feedwater Hardness. Enter the feedwater hardness in grains per unit volume for softener systems, or 1 for filter systems. This option setting is identified by "H" in the upper left hand corner of the screen. The feedwater hardness parameter is only available if the control type has been set to one of the metered options. Use the Up and Down buttons to adjust the value as needed.



Figure 18

Range: 1-199 grains (mg/l)

#### 7. Reserve Selection (Display Code RS)

Press the Extra Cycle button. Use this display to set the Safety Factor and to select the type of reserve to be used in your system. This setting is identified by "RS" in the upper left-hand corner of the screen. The reserve selection parameter is only available if the control type has been set to one of the metered options. There are two possible settings.

Abbreviation	Parameter
SF	Safety Factor
rc	Fixed Reserve Capacity

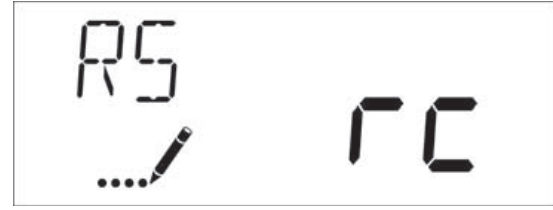


Figure 19

#### 8. Safety Factor (Display Code SF)

Press the Extra Cycle button. Use this display to set the Safety Factor. This setting specifies what percentage of the system capacity will be held as a reserve. Since this value is expressed as a percentage, any change to the unit capacity or feedwater hardness that changes the calculated system capacity will result in a corresponding change to the reserve volume. This option setting is identified by "SF" in the upper left hand corner of the screen. Use the UP and Down buttons to adjust the value from 0 to 50% as needed.

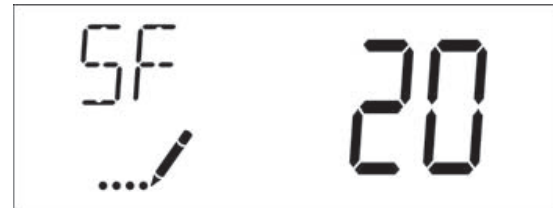


Figure 20

Range: 0-50%

#### 9. Fixed Reserve Capacity (Display Code RC)

Press the Extra Cycle button. Use this display to set the Reserve Capacity. This setting specifies a fixed volume that will be held as a reserve. The reserve capacity cannot be set to a value greater than one-half of the calculated system capacity. The reserve capacity is a fixed volume and does not change if the unit capacity or feedwater hardness are changed. This option setting is identified by "RC" in the upper left-hand corner of the screen. Use the Up and Down buttons to adjust the value as needed.



Figure 21

Range: 0-half of the calculated

#### 10. Day Override (Display Code DO)

Press the Extra Cycle button. Use this display to set the Day Override. This setting specifies the maximum number of days between regeneration cycles. If the system is set to a timer-type control, the day override setting determines how often the system will regenerate. A metered system will regenerate regardless of usage if the days since last regeneration cycle equal the day override setting. Setting the day override value to "OFF" disables this function. This option setting is identified by "DO" in the upper left hand corner of the screen. Use the Up and Down buttons to adjust the value as needed.

# 12 - MASTER PROGRAMMING MODE

## SXT *continued*

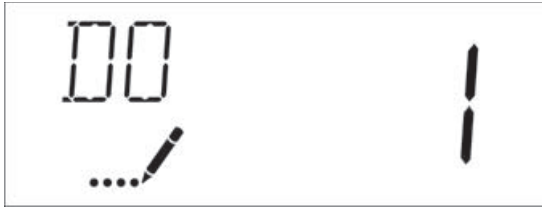


Figure 22

Range: Off-99 days

### 11. Regeneration Time

Press the Extra Cycle button. Use this display to set the Regeneration Time. This setting specifies the time of day the control will initiate a delayed, manually queued, or day override regeneration. This option setting is identified by "RT" in the upper left hand corner of the screen. Use the Up and Down buttons to adjust the value as needed.



Figure 23

### 12. Regeneration Cycle Step Times

Press the Extra Cycle button. Use this display to set the Regeneration Cycle Step Times. The different regeneration cycles are listed in sequence based on the valve type selected for the system, and are identified by an abbreviation in the upper left-hand corner of the screen. The abbreviations used are listed below.

Abbreviation	Cycle Step
BD	Brine Draw
BF	Brine Fill
BW	Backwash
RR	Rapid Rinse
SV	Service

If the system has been configured with the "Other" valve type, the regeneration cycles will be identified as C1, C2, ..., C20. Cycle steps can be programmed in any order using the Up or Down buttons with the following selections. Up to 20 individual cycles can be set. Time for each cycle can be set from 0 to 199 minutes. Setting a cycle step time to 0 will cause the control to skip that step during regeneration, but keeps the following steps available. Use the Up and Down buttons to adjust the value as needed. Press the Extra Cycle button to accept the current setting and move to the next parameter. Program the last cycle step as LC which forces the valve back to the service position.

Abbreviation	Cycle Step
RR	Rapid Rinse
BD	Brine Draw
SR	Slow Rinse
BW	Backwash
RF	Refill
SP	Service Position
LC	Last Cycle



Figure 24

Range: 0-199 minutes

### 13. Day of Week Settings

Press the Extra Cycle button. Use this display to set the regeneration schedule for a system configured as Day of Week control. The different days of the week are identified as D1, D2, D3, D4, D5, D6, and D7 in the upper left-hand corner of the display. Set the value to "ON" to schedule a regeneration or "OFF" to skip regeneration for each day. Use the Up and Down buttons to adjust the setting as needed. Press the Extra Cycle button to accept the setting and move to the next day. Note that the control requires at least one day to be set to "ON" If all 7 days are set to "Off", the unit will return to Day 1 until one or more days are set to "ON".



Figure 25

### 14. Current Day (Display Code CD)

Press the Extra Cycle button. Use this display to set the current day on systems that have been configured as Day of Week controls. This setting is identified by "CD" in the upper left-hand corner of the screen. Use the Up and Down buttons to select from Day 1 through Day 7.

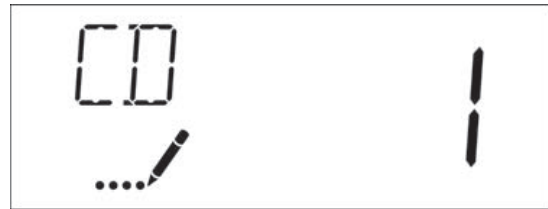


Figure 26



## 12 - MASTER PROGRAMMING MODE

### **SXT continued**

#### **15. Flow Meter Type (Display Code FM)**

Press the Extra Cycle button. Use this display to set the type of flow meter connected to the control. This option setting is identified by "FM" in the upper left-hand corner of the screen. Use the Up and Down buttons to select one of the 8 available settings.

Abbreviation	Description
P0.7	3/4" Paddle Wheel Meter
t0.7	3/4" Turbine Meter
P1.0	1" Paddle Wheel Meter
t1.0	1" Turbine Meter
P1.5	1.5" Paddle Wheel Meter
t1.5	1.5" Turbine Meter
P2.0	2" Paddle Wheel Meter
Gen	Generic or Other non-Fleck Meter



Figure 27

#### **16. Meter Pulse Setting (Display Code K)**

Press the Extra Cycle button. Use this display to specify the meter pulse setting for a non-standard flow meter. This option setting is identified by "K" in the upper left-hand corner of the screen. Use the Up and Down buttons to enter the meter constant in pulses per unit volume.



Figure 28

#### **17. End of Master Programming Mode**

Press the Extra Cycle button to save all settings and exit Master Programming Mode.

## 13 - USER PROGRAMMING MODE SXT

Abbreviation	Parameter	Description
DO	Day Override	The timer's day override setting.
RT	Regeneration Time	The time of the day that the system will regenerate (meter delayed, timeclock, and day-of-week systems)
H	Feed Water Hardness	The hardness of the inlet water - used to calculate system capacity for metered systems.
RC or SF	Reserve Capacity	The fixed reserve capacity.
CD	Current Day	The current day of week.

**NOTE: Some items may not be shown depending on timer configuration. The timer will discard any changes and exit User Programming Mode if a button is not pressed for 60 seconds.**

### User Programming Mode Steps

1. Press the Up and Down buttons for five seconds while in service, and the time of day is NOT set to 12:01 PM.
2. Use this display to adjust the Day Override. This option setting is identified by "DO" in the upper left hand corner of the screen.



Figure 29

3. Press the Extra Cycle button. Use this display to adjust the Regeneration Time. This option setting is identified by "RT" in the upper left hand corner of the screen.



Figure 30

4. Press the Extra Cycle button. Use this display to adjust the Feed Water Hardness. This option setting is identified by "H" in the upper left hand corner of the screen.



Figure 31

Range: 1-199 hardness

5. Press the Extra Cycle button. Use this display to adjust the Fixed Reserve Capacity. This option setting is identified by "RC" or "SF" in the upper left-hand corner of the screen.



Figure 32

6. Press the Extra Cycle button. Use this display to set the Current Day of the Week. This option setting is identified by "CD" in the upper left hand corner of the screen.

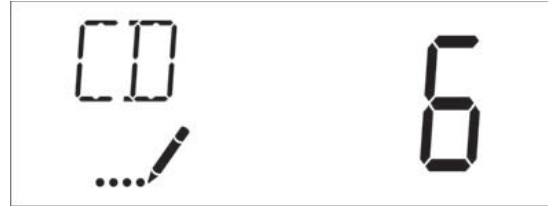


Figure 33

7. Press the Extra Cycle button to end User Programming Mode.

# 14 - DIAGNOSTIC PROGRAMMING

## MODE SXT

Abbreviation	Parameter	Description
FR	Flow Rate	Displays the current outlet flow rate.
PF	Peak Flow Rate	Displays the highest flow rate measured since last regeneration.
HR	Hours in Service	Displays the total hours that the unit has been in service.
VU	Volume Used	Displays the total volume of water treated by the unit.
RC	Reserve Capacity	Displays the system's reserve capacity calculated from the system capacity, feedwater hardness, and safety factor
SV	Software Version	Displays the software version installed on the controller.

**NOTE: Some items may not be shown depending on timer configuration. The timer will discard any changes and exit User Programming Mode if a button is not pressed for 60 seconds.**

### Diagnostic Programming Mode Steps

1. Press the Up and Down buttons for five seconds while in service.
2. Use this display to view the current Flow Rate. This option setting is identified by "FR" in the upper left hand corner of the screen.



Figure 34

3. Press the Up button. Use this display to view the Peak Flow Rate since the last regeneration cycle. This option setting is identified by "PF" in the upper left hand corner of the screen.



Figure 35

4. Press the Up button. Use this display to view the Hours in Service since the last regeneration cycle. This option setting is identified by "HR" in the upper left hand corner of the screen.



Figure 36

5. Press the Up button. Use this display to view the Volume Used since the last regeneration cycle. This option setting is identified by "VU" in the upper left-hand corner of the screen.



Figure 37

6. Press the Up button. Use this display to view the Reserve Capacity. This option setting is identified by "RC" in the upper left hand corner of the screen.



Figure 38

7. Press the Up button. Use this display to view the Software Version. This option setting is identified by "SV" in the upper left hand corner of the screen.



Figure 39

8. Press the Extra Cycle button to end Diagnostic Programming Mode.

## 15 - TROUBLESHOOTING LXT

### Error Codes

**NOTE: Error codes appear on the In Service display.**

Error Code	Error Type	Cause	Reset and Recovery
---0	Motor Stall /Cam Sense Error	No state changes in the optical sensor are detected for 6 seconds.	<p>Unplug the unit and plug back in. Allow the control to attempt to find position again.</p> <p>Verify the optical sensor is in place with the wires connected to the circuit board. Verify the motor and drive train components are in good condition and assembled properly. Check the valve and verify that the piston travels freely. Replace/reassemble the various components as necessary.</p> <p>Plug the unit back in and observe its behavior. If the error reoccurs, unplug the unit, put it into bypass and contact technical support.</p>
---1	Motor Run-On Error /Cycle Sense Error	An undesired optical sensor state change occurred.	Non-critical error. Extra optical sensor pulse detected. Press any button to clear the error. Press extra cycle button to advance motor to clear error.
---2	Regen Failure	The system has not regenerated in 30 days.	<p>Perform a Manual Regeneration to reset the error code.</p> <p>If the system is metered, verify that it is measuring flow by running service water and watching for the flow indicator on the display. If the unit does not measure flow, verify that the meter cable is connected properly and that the meter is functioning properly.</p> <p>Enter Master Programming Mode and verify that the unit is configured as appropriate for the valve configuration. Check that the correct system capacity and meter size has been selected.</p>
---4	Fail Safe Error	Valve has failed to find position in one minute.	Unplug the unit and plug it back in. If error continues, call technical support.

## 16 - TROUBLESHOOTING SXT

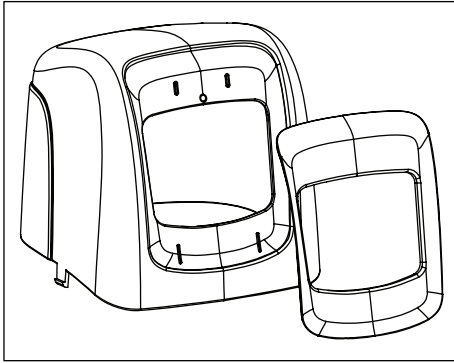
### Error Codes

**NOTE: Error codes appear on the In Service display.**

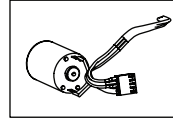
Error Code	Error Type	Cause	Reset and Recovery
---0	Motor Stall /Cam Sense Error	No state changes in the optical sensor are detected for 6 seconds.	<p>Unplug the unit and plug back in. Allow the control to attempt to find position again.</p> <p>Verify the optical sensor is in place with the wires connected to the circuit board. Verify the motor and drive train components are in good condition and assembled properly. Check the valve and verify that the piston travels freely. Replace/reassemble the various components as necessary.</p> <p>Plug the unit back in and observe its behavior. If the error reoccurs, unplug the unit, put it into bypass and contact technical support.</p>
---1	Motor Run-On Error /Cycle Sense Error	An undesired optical sensor state change occurred.	Non-critical error. Extra optical sensor pulse detected. Press any button to clear the error. Press extra cycle button to advance motor to clear error.
---2	Regen Failure	The system has not regenerated for more than 99 days (or 7 days if the Control Type has been set to Day-of-Week).	<p>Perform a Manual Regeneration to reset the error code.</p> <p>If the system is metered, verify that it is measuring flow by running service water and watching for the flow indicator on the display. If the unit does not measure flow, verify that the meter cable is connected properly and that the meter is functioning properly.</p> <p>Enter Master Programming Mode and verify that the unit is configured properly, For the valve configuration. Check that the correct system capacity has been selected, that the day override is set properly, and that meter is identified correctly. If the unit is configured as a Day-of-Week system, verify that at least one day is set ON. Correct the setting as necessary.</p>
---3	Memory Error	Control board memory failure.	Perform a Master Reset and reconfigure the system via Master Programming Mode. After reconfiguring the system, step the valve through a manual regeneration. If error continues, call technical support.
---4	Fail Safe Error	Valve has failed to find position in one minute.	Unplug the unit and plug it back in. If error continues, call technical support.

# 17 - POWERHEAD ASSEMBLY LXT

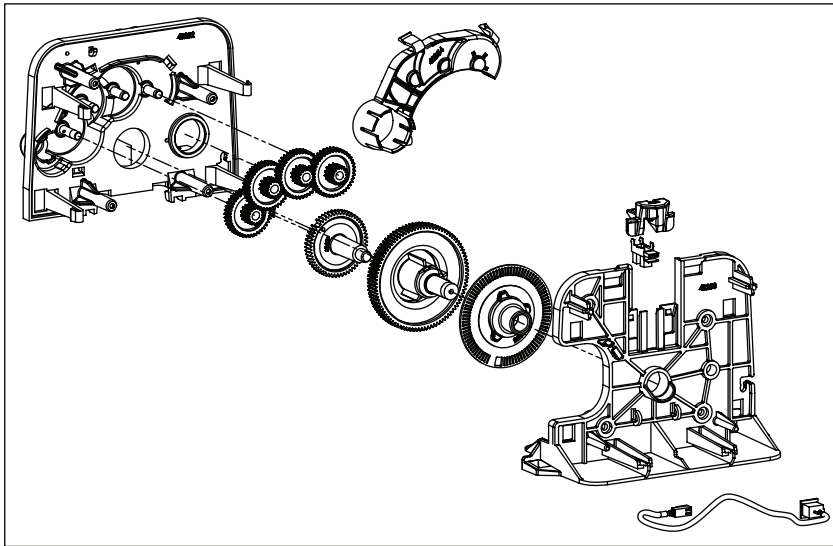
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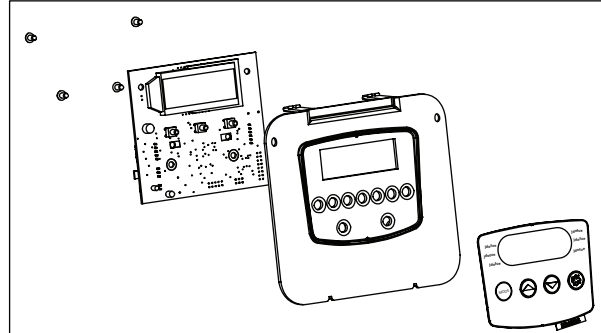
4



2



3



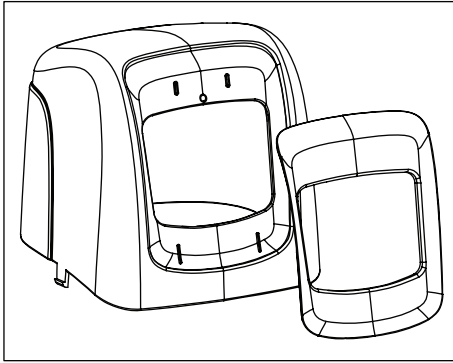
Item No.	QTY	Part No.	Description
1	1	61832-00	Cover Assembly, Black/Blue
2	1	61836	Panel Gear Assembly, Downflow/Upflow
3	1	*	E Timer
4	1	61835	Motor Assembly

\*Call your distributor for part number.

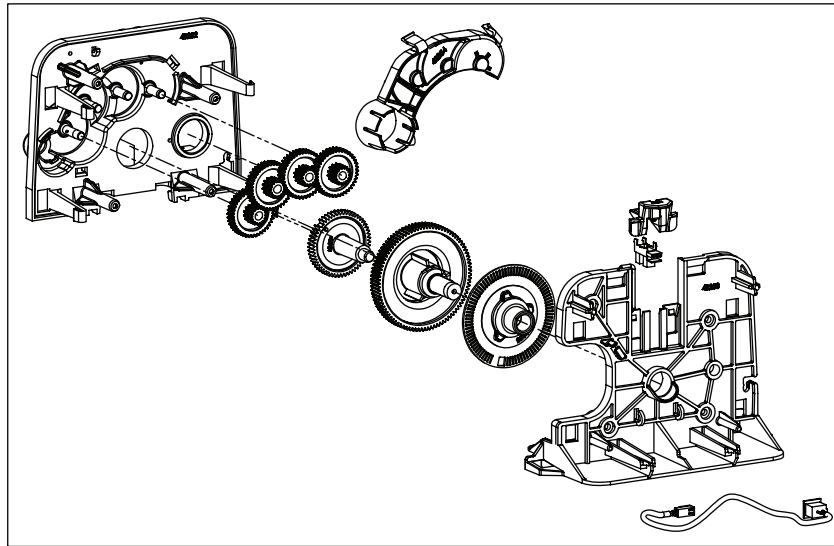
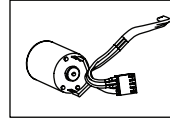


# 18 - POWERHEAD ASSEMBLY SXT

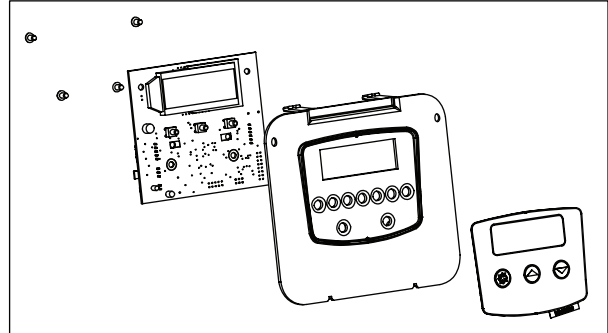
1



4

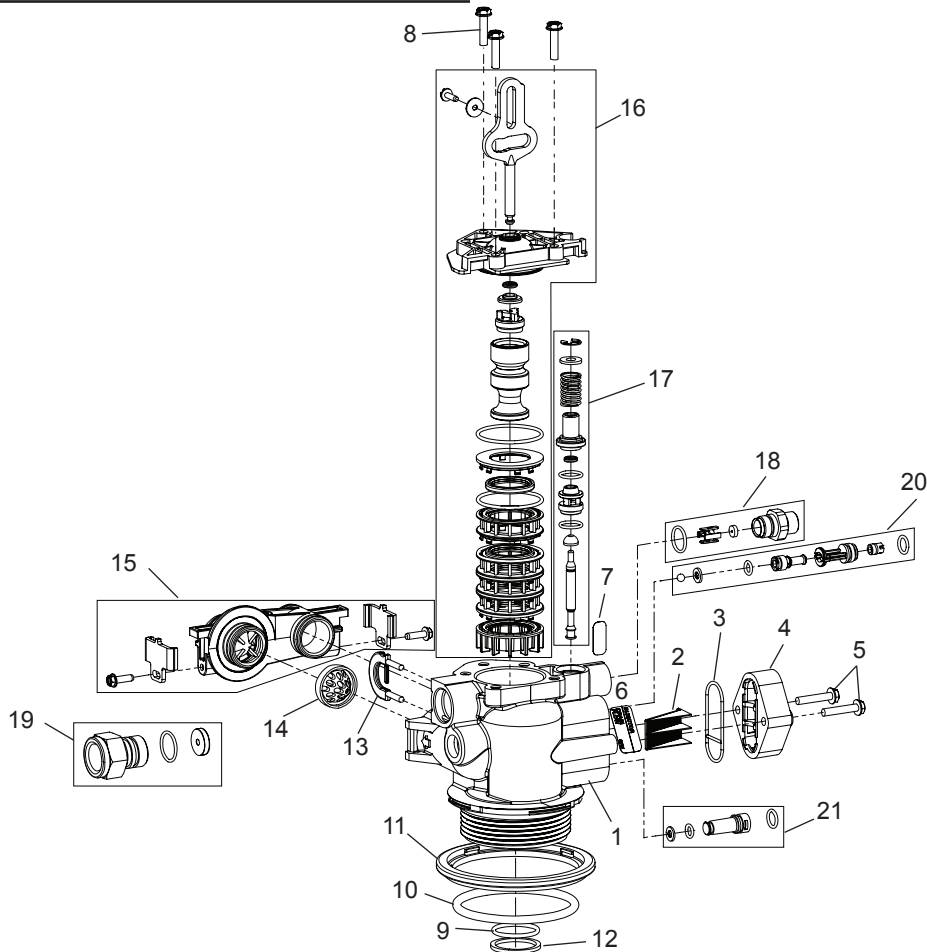


3



Item No.	QTY	Part No.	Description
1	1	61832-00	Cover Assembly, Black/Blue
2	1	61836	Panel Gear Assembly, Downflow/Upflow
3	1	61834	Timer Assembly, SXT
4	1	61835	Motor Assembly

# 19 - 5800 CONTROL VALVE ASSEMBLY DOWNFLOW/UPFLOW



Item No.	QTY	Part No.	Description	Item No.	QTY	Part No.	Description
1	1	61857-20	Valve Body Assy, Mixing, Downflow/Upflow (Includes Items 9, 10, 11 and 12)	60705-08	1	DLFC, Plastic, 0.80 gpm	
2	1	18271	Screen Injector, 5000	60705-10	1	DLFC, Plastic, 1.0 gpm	
3	1	40064	Seal Injector	60705-12	1	DLFC, Plastic, 1.2 gpm	
4	1	18277	Cap Injector	60705-13	1	DLFC, Plastic, 1.3 gpm	
		18278-20	Injector Cap Assy, 1610 Regulated, 5000, 20 psi, Black, Upflow	60705-15	1	DLFC, Plastic, 1.5 gpm	
		18278-30	Injector Cap Assy, 1610 Regulated, 5000, 30 psi, Black, Upflow	60705-17	1	DLFC, Plastic, 1.7 gpm	
5	2	18262	Screw, Hex Washer Head, #10-24 x 1.00	60705-20	1	DLFC, Plastic, 2.0 gpm	
6	1	10759	Label, 0.5 gpm 1.5 lbs Salt/Min	60705-24	1	DLFC, Plastic, 2.4 gpm	
7	1	13333	Label, Injector, Blank	60705-30	1	DLFC, Plastic, 3.0 gpm	
8	3	18261	Screw, Hex Washer Head, #10-24 0.81	60705-35	1	DLFC, Plastic, 3.5 gpm	
9	1	13304	O-ring, -121	60705-40	1	DLFC, Plastic, 4.0 gpm	
10	1	18303-01	O-ring, -336, 560CD	60705-45	1	DLFC, Plastic, 4.5 gpm	
11	1	18589	Retainer, Tank Seal	60705-50	1	DLFC, Plastic, 5.0 gpm	
12	1	13030	Retainer, Distributor Tube O-ring	60705-60	1	DLFC, Plastic, 6.0 gpm	
13	1	18312	Retaining Cup	60705-70	1	DLFC, Plastic, 7.0 gpm	
14	1	14613	Flow Straightener	60706-10	1	DLFC, AC x 3/4"F, 10 gpm	
15	1	60628	Meter Assy, Turbine, Electronic	60706-12	1	DLFC, AC x 3/4"F, 12 gpm	
16		61837	Piston and Seal Kit Assy, Downflow, 5800	60706-15	1	DLFC, AC x 3/4"F, 15 gpm	
		61838	Piston and Seal Kit Assy, Upflow, 5800	20	1	18272-000 Injector Assy, 1610, #000, Brown	
17	1	60032	Brine Valve, 4600/5600		1	18272-00 Injector Assy, 1610, #00, Violet	
18		60022-25	BLFC, 0.25 gpm, 5000/5600/9000		1	18272-0 Injector Assy, 1610, #0, Red	
		60022-50	BLFC, 0.50 gpm, 5000/5600/9000		1	18272-1 Injector Assy, 1610, #1, White	
		60022-100	BLFC, 1.0 gpm, 5000/5600/9000		1	18272-2 Injector Assy, 1610, #2, Blue	
19		60705-00	DLFC, Plastic, Blank		1	18272-3 Injector Assy, 1610, #3, Yellow	
		60705-06	DLFC, Plastic, 0.60 gpm	21	1	18276-01 Injector Assy, Plug, w/O-rings	

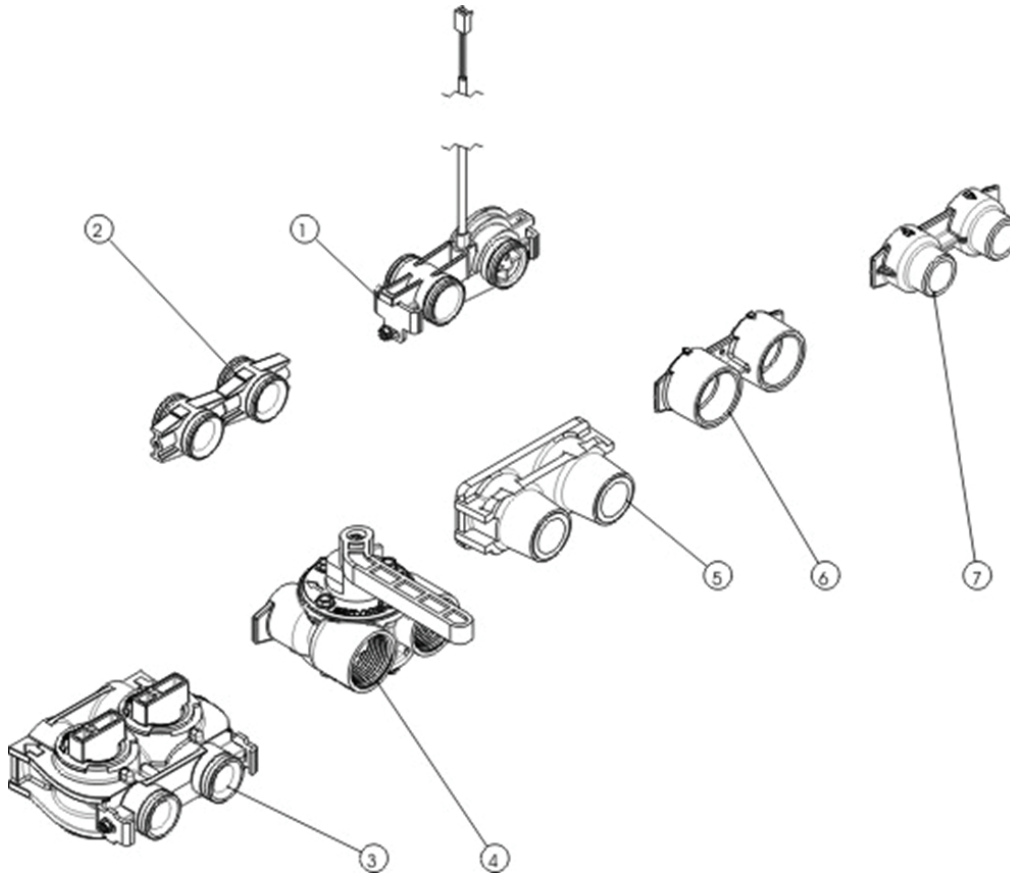
**Not Shown:**

- .....40947-01 ..... Plug, Brine Valve, w/O-ring, 560CD
- .....13918-01 ..... BLFC Module Plug Assy, w/O-ring

NOTE: In upflow units, the Injector Plug and Injector Assy are put in the reverse holes.

In filter units, both injector holes are plugged with 18276-01.

## 20 – METER & ACCESSORIES



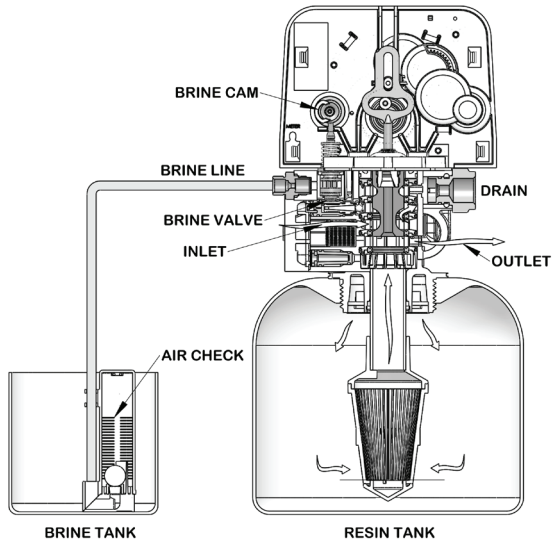
Montage selon version chronométrique ou volumétrique  
 Assembly according to timeclock or metered version  
 Montage jenach zeit- oder mengengesteuerten Version  
 Montaje según versión cronométrica o volumétrica  
 Montaggio second la versione cronometrica o volumetrica  
 Montage volgens chronometrische of volumetrische versie

Item No.	QTY	Part No.	Description
1	1	BU60626-01	Meter Turbin Assy 5800
2	2	13709	Coupling Adapter Assy
3	1	60049	Bypass Assy 3/4" Plastic
4	1	BU28502	Bypass Assy 1", Stainless steel
5	1	18706-12	Yoke 3/4" BSP male plastic
5	1	18706-10	Yoke 1" BSP male plastic
6	1	13398-10	Yoke 1" BSP female brass
7	1	24689	Yoke 3/4" BSP male brass

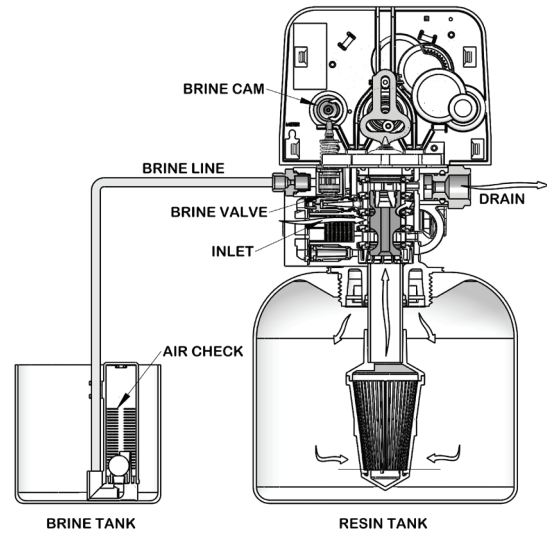
# 21 - WATER CONDITIONER FLOW DIAGRAMS

## Downflow

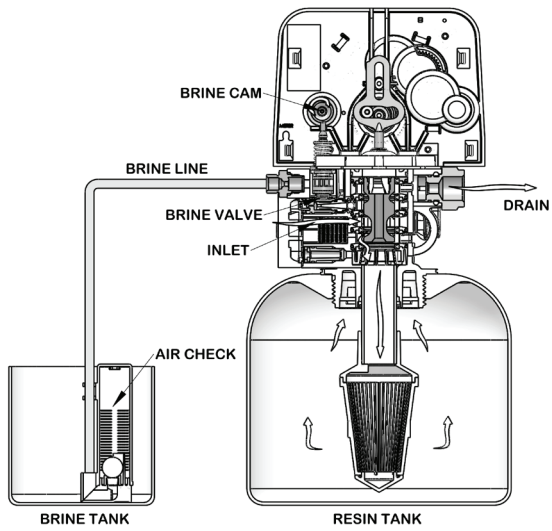
### 1. Service Position



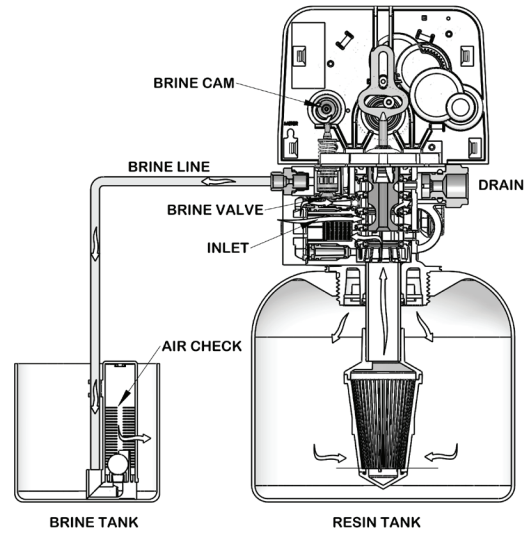
### 4. Rapid Rinse Position



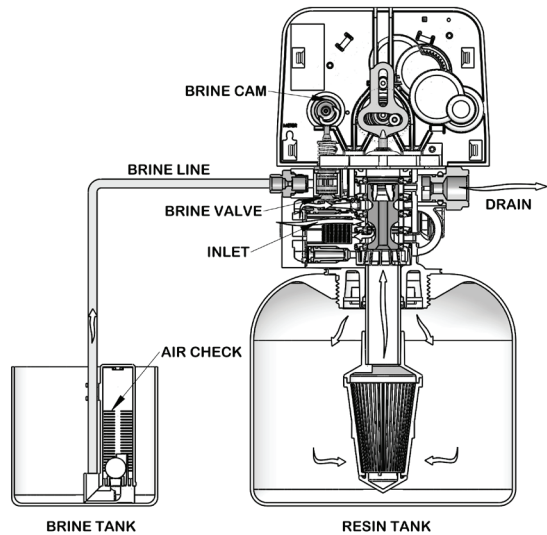
### 2. Backwash Position



### 5. Brine Tank Refill Position



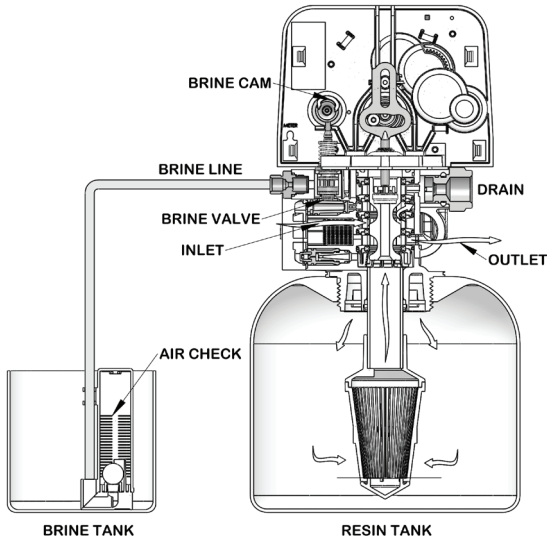
### 3. Brine/Slow Rinse Position



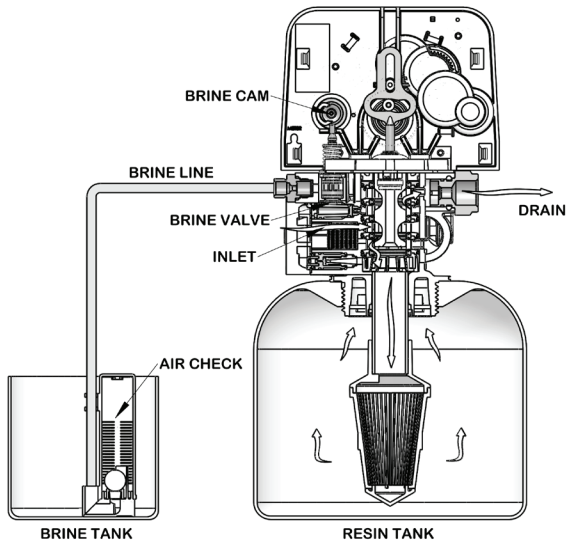
# 21 - WATER CONDITIONER FLOW DIAGRAMS *continued*

## Upflow

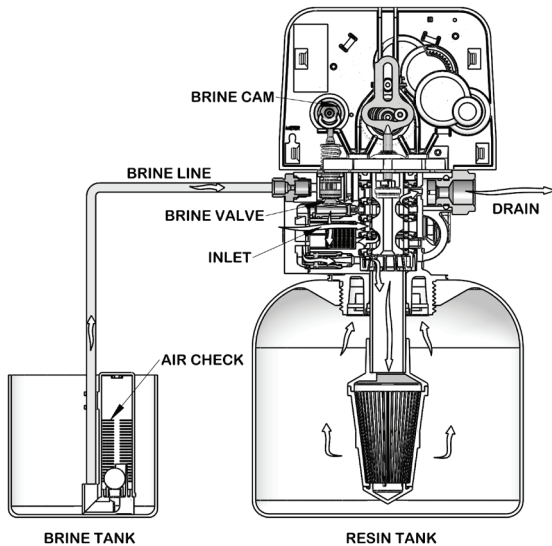
1. Service Position



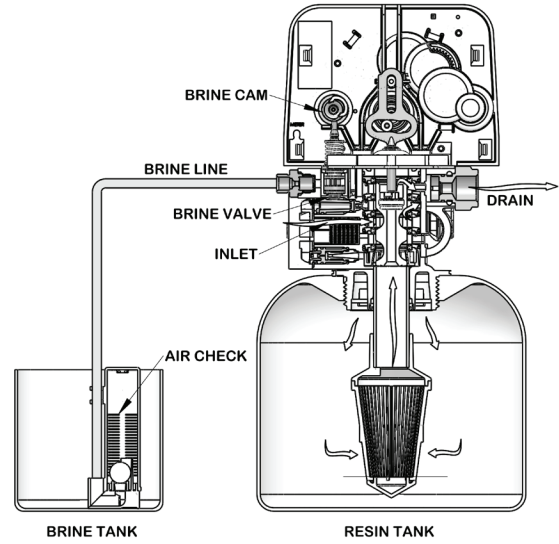
2. Backwash Position



3. Brine/Slow Rinse Position



4. Rapid Rinse Position



5. Brine Tank Refill Position

